

Genus *Pieris*

The species ranges from Oregon to central California, and eastward to Colorado.

(3) *Pieris occidentalis*, Reakirt, Plate XXXIV, Fig. 13, ♂ (The Western White).

Butterfly.—Not unlike the preceding species on the upper side, but easily distinguished by the markings of the under side of the wings, which are not concentrated in blotches, but extend as broad longitudinal rays on either side of the veins from the base to the outer margin.

Early Stages.—These require further investigation. We do not, as yet, know much about them.

The species has a wide range in the mountain States of the West, where it replaces the Eastern *P. protodice*.

(4) *Pieris protodice*, Boisduval and Leconte, Plate XXXIV, Fig. 10, ♂; Fig. n, ♀; Plate II, Fig. 7, larva; Plate V, Figs. 66, 67, *chrysalis* (see also p. 12, Fig. 26) (The Common White).

Butterfly.—Allied to the foregoing species, especially to *P. occidentalis*; but it may always be quickly distinguished by the pure, immaculate white color of the hind wings of the male on the under side, and by the fact that in the female the hind wings are more lightly marked along the veins by gray-green.

Winter form *vernalis*, Edwards, Plate XXXIV, Fig. 18, ♂.

What has been said of the typical or summer form does not hold true of this winter form, which emerges from *chrysalids* which have withstood the cold from autumn until spring. The butterflies emerging from these are generally dwarfed in size, and in the males have the dark spots on the upper side of the wings almost obsolete or greatly reduced, and the dark markings along the veins on the under side well developed, as in *P. occidentalis*.

The females, on the contrary, show little reduction in the size and intensity of any of the spots, but rather a deepening of color, except in occasional instances.

Early Stages.—The life-history of this insect has

often been described. The caterpillar feeds upon cruciferous plants, like many of its congeners.

It ranges from the Atlantic to the Rocky Mountains, from Canada to the Gulf States.

(5) *Pieris sisymbri*, Boisduval, Plate XXXIV, Fig. 12, \$ (The California White).

Butterfly.—*Smaller in size than the preceding species, with*